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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/006,188	12/03/2001	Yuan-Liang Li	884.655US1	8851
21186	7590	08/04/2005	EXAMINER	
SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A. P.O. BOX 2938 MINNEAPOLIS, MN 55402-0938			PHAM, LONG	
			ART UNIT	PAPER NUMBER
			2814	

DATE MAILED: 08/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/006,188

Applicant(s)

LI ET AL.

Examiner

Long Pham

Art Unit

2814

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above claim(s) 17-42 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 and 43-49 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

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## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of claims 1-16 and 43-49 in the reply filed on 06/06/05 is acknowledged.

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-5 are rejected under 35 U.S.C. 102(e) as being anticipated by Kuroda et al. (US patent 6,327,134).

With respect to claim 1, Kuroda et al. teach a capacitor comprising (see figs. 1-20 and associated text):

a body 1 having a first and second charge-storing elements or internal electrodes 10,11 in its interior, and having plurality of exterior sides; and P separate or three terminals 12, 13 on at least three exterior sides (three vertical sides of body 1), M or two of the separate terminals (12 on two vertical sides) being coupled to the first charge-storing element 10, and N or one of the separate terminals (13 on one vertical side of body 1) being coupled to the second charge-storing element 11, wherein M, N, and P are positive integers, and wherein  $P \text{ (three)} = M \text{ (two)} + N \text{ (one)}$ .

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With respect to claim 2, Kuroda et al. further teach that the P separate terminals comprise at least four separate terminals (two 12 terminals and two 13 terminals on the four vertical sides of body 1) on four different ones of the plurality of exterior sides.

With respect to claim 3, Kuroda et al. further teach that the P separate terminals comprise at least five separate terminals (two 12 terminals and two 13 terminals on the four vertical sides of body 1 and one terminal 14 or 15 on the top or bottom side of body 1) on five different ones of the plurality of exterior sides.

With respect to claim 4, Kuroda et al. further teach that the P separate terminals comprise at least six separate terminals (two 12 terminals and two 13 terminals on the four vertical sides of body 1 and one terminal 14 or 15 on the top side and one terminal 14 or 15 on bottom side of body 1) on six different ones of the plurality of exterior sides.

With respect to claim 5, Kuroda et al. further teach the body has geometrical shape of a rectangular solid.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 6-16 and 43-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuroda et al. (US patent 6,327,134) in combination with the applicant's admitted prior art (AAPA) of this application.

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With respect to claims 6 and 43, Kuroda et al. teach a capacitor comprising (see figs. 1-20 and associated text):

a body 1 having an interior and a plurality of sides (top side, bottom side, four vertical sides);

a first element 10 to hold an electrical charge;

a second element 11 to hold an electrical charge;

first and second terminals (12 and 13 on 2 opposite vertical sides of body 1) coupled to first and second elements, respectively, disposed on first and second ones of the plurality of exterior sides; and

a third terminal 12 (12 on another vertical side of body 1) coupled to the first element and disposed on a third one of the plurality of exterior sides, wherein the third terminal is electrically coupled to the first terminal only via the first element.

Kuroda et al. fail to teach that first element holds a charge of first polarity and the second element holds a charge of second polarity.

AAPA teaches a capacitor having both first and second polarity charge holding elements. See figs. 1-2 and associated text of the specification of this application.

It would have been obvious to one of ordinary skill in the art of making semiconductor devices to incorporate the above teaching of AAPA to form a dual-terminal capacitor. See figs. 1-2 and associated text of the specification of this application.

With respect to claims 7 and 443, Kuroda et al. further teach at least one conductor 10 (comprises of 3 conductors) within the interior and, wherein the third terminal is electrically connected to the first terminal only via the first element and at least one conductor. See fig. 4 of Kuroda et al.

With respect to claims 8, 15, and 43, Kuroda et al. further teach at least one additional conductor 11 (comprises of 2 conductors) within the interior and a

fourth terminal 13 (on the vertical side of body opposite the third terminal) coupled to the second element 11 and disposed on a fourth one of the plurality of exterior sides, wherein the fourth terminal is electrically coupled to the second terminal only via the second element and the at least one additional conductor. See fig. 4 of Kuroda et al.

With respect to claims 9 and 44, Kuroda et al. further teach the third and fourth exterior sides are on opposite sides of the body. See fig. 4 of Kuroda et al.

With respect to claims 10 and 45, Kuroda et al. further teach the first and second elements are within the interior. See fig. 4 of Kuroda et al.

With respect to claims 11 and 46, Kuroda et al. further teach the first element is separated from the second element by a dielectric material 9. See fig. 4 of Kuroda et al.

With respect to claims 12 and 47, Kuroda et al. further teach the body has a geometrical shape of a rectangular solid.

With respect to claim 13, Kuroda et al. further teach at least one additional conductor 10 within the interior and a fourth terminal 12 coupled to the first element and disposed on a fourth one of the plurality of exterior sides, wherein the fourth terminal is electrically coupled to the first terminal only via the first element and the at least one additional conductor. See fig. 4 of Kuroda et al.

With respect to claim 14, Kuroda et al. further teach the third and fourth exterior sides are on opposite sides of the body. See fig. 4 of Kuroda et al. Further with respect to claims 15 and 48, Kuroda et al. further teach a fifth terminal 14 coupled to the first element and disposed on a fifth one of the plurality of exterior sides (top or bottom sides of body), wherein the fifth terminal is electrically coupled to the first terminal only via the first element.

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With respect to claims 16 and 49, Kuroda et al. further teach a sixth terminal 15 coupled to the second element 11 and disposed on a sixth one of the plurality of exterior sides (top or bottom sides of box), wherein the sixth terminal is electrically coupled to the second terminal only via the second element.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Long Pham whose telephone number is 571-272-1714. The examiner can normally be reached on M-F, 7:30AM-3:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael Fahmy can be reached on 571-272-1705. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Long Pham  
Primary Examiner  
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LP

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